



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0127; Directorate Identifier 2013-NM-237-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 767 airplanes. This proposed AD was prompted by reports of latently failed fuel shutoff valves discovered during fuel filter replacement. This proposed AD would require revising the maintenance or inspection program to include new airworthiness limitations. We are proposing this AD to detect and correct latent failures of the fuel shutoff valve to the engine, which could result in the inability to shut off fuel to the engine and, in case of certain engine fires, an uncontrollable fire that could lead to wing failure.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Rebel Nichols, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6509; fax: (425) 917-6590; email: rebel.nichols@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2014-0127; Directorate Identifier 2013-NM-237-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received reports of latently failed fuel shutoff valves discovered during fuel filter replacement. Deficiencies in the valve actuator design have resulted in latent failures of the fuel shutoff valve to the engine. This condition, if not detected and corrected, could result in latent failures of the fuel shutoff valve to the engine, which could result in the inability to shut off fuel to the engine and, in case of certain engine fires, an uncontrollable fire that could lead to wing failure.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require revising the maintenance or inspection program to include new airworthiness limitations. The airworthiness limitations would allow an operator to perform the operational check as either a maintenance action or a flightcrew action. The flightcrew or maintenance crew would monitor the engine spar valve lights for a few seconds immediately after moving the engine fuel condition levers. Flightcrews can perform this operational check while starting the engine or while shutting down the engine. Maintenance crews can do this operational check as a separate action that does not require actual starting of the engine.

This proposed AD would require revisions to certain operator maintenance documents to include these new inspections. Compliance with these inspections is required by section 91.403(c) of the Federal Aviation Regulations (14 CFR 91.403(c)). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, an operator might not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c),

the operator must request approval of an alternative method of compliance (AMOC) in accordance with the provisions of paragraph (i) of this proposed AD. The request should include a description of changes to the proposed inspections that will ensure the continued operational safety of the airplane.

Interim Action

We consider this proposed AD interim action. The manufacturer is currently developing a modification that will address the unsafe condition identified in this proposed AD. Once this modification is developed, approved, and available, we might consider additional rulemaking.

Costs of Compliance

We estimate that this proposed AD affects 450 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Incorporating Airworthiness Limitation	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$38,250

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Amend § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2014-0127; Directorate Identifier 2013-NM-237-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 767-200, -300, -300F, and -400ER series airplanes, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 2823, Fuel Selector/Shut-off Valve.

(e) Unsafe Condition

This AD was prompted by reports of latently failed fuel shutoff valves discovered during fuel filter replacement. We are issuing this AD to detect and correct latent failures of the fuel shutoff valve to the engine, which could result in the inability to shut off fuel to the engine and, in case of certain engine fires, an uncontrollable fire that could lead to wing failure.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Revision of Maintenance or Inspection Program

Within 30 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to add airworthiness limitation numbers 28-AWL-ENG, 28-AWL-MOV, and 28-AWL-APU, by incorporating the information

specified in Figure 1, Figure 2, and Figure 3 to paragraph (g) of this AD into the Airworthiness Limitations Section of the Instructions for Continued Airworthiness. The initial compliance time for accomplishing the actions specified in Figure 1, Figure 2, and Figure 3 to paragraph (g) of this AD is within 7 days after accomplishing the maintenance or inspection program revision required by this paragraph.

Figure 1 to Paragraph (g) of this AD: Engine Shut-Off Valve (Fuel Spar Valve) Position Indication Operational Check

AWL Number	Task	Interval	Applicability	Description
28-AWL-ENG	ALI	DAILY	767-200, -300, and -300F airplanes	<p>Engine Shut-Off Valve (Fuel Spar Valve) Position Indication Operational Check</p> <p>Concern: The MOV actuator design can result in airplanes operating with a failed MOV actuator that is not reported. A latently failed MOV actuator could prevent fuel shut off to an engine. In the event of certain engine fires, the potential exists for an engine fire to be uncontrollable.</p> <p>Perform one of the following operational checks of the Fuel Spar Valve position indication (unless checked by the flight crew in a manner approved by the principal operations inspector):</p> <p>A. Operational Check during engine shutdown</p> <p>1. Do an operational check of the left engine fuel spar valve actuator.</p> <p>a. As the L FUEL CONTROL switch on the quadrant control stand is moved to the CUTOFF position, verify the left SPAR VALVE disagreement light on the</p>

AWL Number	Task	Interval	Applicability	Description
	<p>quadrant control stand illuminates and then goes off.</p> <p>b. If the test fails (light fails to illuminate), before further flight, repair faults as required (refer to Boeing Airplane Maintenance Manual (AMM) 28-22-11).</p> <p>2. Do an operational check of the right engine fuel spar valve actuator.</p> <p>a. As the R FUEL CONTROL switch on the quadrant control stand is moved to the CUTOFF position, verify the right SPAR VALVE disagreement light on the quadrant control stand illuminates and then goes off.</p> <p>b. If the test fails (light fails to illuminate), before further flight, repair faults as required (refer to Boeing AMM 28-22-11).</p> <p>B. Operational check during engine start</p> <p>1. Do an operational check the left engine fuel spar valve actuator.</p> <p>a. As the L FUEL CONTROL switch on the quadrant control stand is moved to the RUN (or RICH) position, verify the left SPAR VALVE disagreement light on the quadrant control stand illuminates and then goes off.</p> <p>b. If the test fails (light fails to illuminate), before further flight, repair faults as required (refer to Boeing AMM 28-22-11).</p> <p>2. Do an operational check of the right engine fuel spar valve actuator.</p> <p>a. As the R FUEL CONTROL switch on the quadrant control stand is moved to the RUN (or</p>			

AWL Number	Task	Interval	Applicability	Description
				<p>RICH) position, verify the right SPAR VALVE disagreement light on the quadrant control stand illuminates and then goes off.</p> <p>b. If the test fails (light fails to illuminate), before further flight, repair faults as required (refer to Boeing AMM 28-22-11).</p> <p>C. Operational check without engine operation</p> <ol style="list-style-type: none"> 1. Make sure all fuel pump switches on the Overhead Panel are in the OFF position. 2. If the APU is running, open and collar the L FWD FUEL BOOST PUMP (C00372) circuit breaker on the Main Power Distribution Panel. 3. Make sure LEFT and RIGHT ENG FIRE switches on the Aft Aisle Stand are in the NORMAL (IN) position. 4. Make sure L and R ENG STAR Selector Switches on the Overhead Panel are in the OFF position. 5. For airplanes with PW4000 series engines without SCU, make sure the EEC MAINT “L ENG POWER” and “R ENG POWER” switches on the right side P61 maintenance panel is in the “NORM” position. 6. Do an operational check of the left engine fuel spar valve actuator. <ol style="list-style-type: none"> a. Move L FUEL CONTROL switch on the quadrant control stand to the RUN position and wait 10 seconds. <p>NOTE: It is normal under this test condition for the ENG VALVE disagreement light on the quadrant control stand to stay illuminated.</p>

AWL Number	Task	Interval	Applicability	Description
				<p>b. Move L FUEL CONTROL switch on the quadrant control stand to the CUTOFF position.</p> <p>c. Verify the left SPAR VALVE disagreement light on the quadrant control stand illuminates and then goes off.</p> <p>d. If the test fails (light fails to illuminate), before further flight, repair faults as required (refer to Boeing AMM 28-22-11).</p> <p>7. Operational check the right engine fuel spar valve actuator.</p> <p>a. Move R FUEL CONTROL switch on the quadrant control stand to the RUN position and wait 10 seconds.</p> <p>NOTE: It is normal under this test condition for the ENG VALVE disagreement light on the quadrant control stand to stay illuminated.</p> <p>b. Move R FUEL CONTROL switch on the quadrant control stand to the CUTOFF position.</p> <p>c. Verify the right SPAR VALVE disagreement light on the quadrant control stand illuminates and then goes off.</p> <p>d. If the test fails (light fails to illuminate), before further flight, repair faults as required (refer to Boeing AMM 28-22-11).</p> <p>8. If the L FWD FUEL BOOST PUMP circuit breaker was collared in step C.2., remove collar and close.</p>

Figure 2 to Paragraph (g) of this AD: Engine Shut-Off Valve (Fuel Spar Valve) MOV Actuator Inspection

AWL Number	Task	Interval	Applicability	Description
28-AWL-MOV	ALI	10	767-400ER	Engine Shut-Off Valve (Fuel Spar

AWL Number	Task	Interval	Applicability	Description
		DAYS	series airplanes	<p>Valve) MOV Actuator Inspection</p> <p>Concern: The MOV actuator design can result in airplanes operating with a failed MOV actuator that is not reported. A latently failed MOV actuator would prevent fuel shutoff to an engine. In the event of certain engine fires, the potential exists for an engine fire to be uncontrollable.</p> <p>Perform an inspection of the Fuel Spar Valve MOV Actuator position (refer to Boeing AMM 28-22-00).</p> <p>NOTE: The Fuel Spar Valve MOV Actuator is located behind latch panel 551 DB (left engine) and latch panel 651 DB (right engine).</p> <ol style="list-style-type: none"> 1. Make sure the Engine Control Switch is in the CUTOFF position. 2. Inspect the left engine fuel spar valve actuator located in the left rear spar. <ol style="list-style-type: none"> a. Verify the manual override handle on the engine fuel spar valve actuator is in the CLOSED position. b. Repair or replace any MOV actuator that is not in the CLOSED position (refer to Boeing AMM 28-22-11). 3. Inspect the right engine fuel spar valve actuator located in the right rear spar. <ol style="list-style-type: none"> a. Verify the manual override handle on the engine fuel spar valve actuator is in the CLOSED position. b. Repair or replace any MOV

AWL Number	Task	Interval	Applicability	Description
				actuator that is not in the CLOSED position (refer to Boeing AMM 28-22-11).

Figure 3 to Paragraph (g) of this AD: APU Fuel Valve Position Indication Operational Check

AWL Number	Task	Interval	Applicability	Description
28-AWL-APU	ALI	10 DAYS	ALL	<p>APU Fuel Valve Position Indication Operational Check</p> <p>Concern: The MOV actuator design can result in airplanes operating with a failed MOV actuator that is not reported. A latently failed MOV actuator could prevent fuel shut off to the APU. In the event of certain APU fires, the potential exists for an APU fire to be uncontrollable.</p> <p>Perform the operational check of the APU Fuel Valve position indication (unless checked by the flight crew in a manner approved by the principal operations inspector)</p> <p>A. Do an operational check of the APU Fuel Valve position indication.</p> <ol style="list-style-type: none"> 1. If the APU is running, unload and shut down the APU using standard practices. 2. Make sure the APU FIRE switch on the Aft Aisle Stand is in the NORMAL (IN) position. 3. Make sure there is at least 1,000 lbs (500 kgs) of fuel in the Left Main Tank. 4. Move APU Selector switch on the Overhead Panel to the ON position and wait 10 seconds. 5. Move APU Selector switch on the

AWL Number	Task	Interval	Applicability	Description
				<p>Overhead Panel to the OFF position.</p> <p>6. Verify the APU FAULT light on the Overhead Panel illuminates and then goes off.</p> <p>7. If the test fails (light fails to illuminate), before further flight requiring APU availability, repair faults as required (refer to Boeing AMM 28-25-02).</p> <p>NOTE: Dispatch may be permitted per MMEL 28-25-02 if APU is not required for flight.</p>

(h) No Alternative Actions and Intervals

After accomplishment of the maintenance or inspection program revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (i)(1) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO) FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information

directly to the manager of the ACO, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

For more information about this AD, contact Rebel Nichols, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6509; fax: (425) 917-6590; email: rebel.nichols@faa.gov.

Issued in Renton, Washington, on February 18, 2014.

Ross Landes,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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